IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Tadayuki KAMEYAMA et al. Confirmation No.: 7643

Serial No.: 10/548,085 Group Art Unit: 2871

Filed: September 6, 2005 Examiner: CHEN WEN YING

For: HIGH-BRIGHTNESS POLARIZING PLATE, LIQUID CRYSTAL PANEL COMPRISING THE SAME AND IMAGE VIEWING DISPLAY

DECLARATION UNDER RULE 1.132

Commissioner for Patents
P.O.Box 1450
Alexandria, VA 22313-1450

Sir:

I, Tadayuki KAMEYAMA, a citizen of Japan and residing at 1-1-2, Shimohozumi, Ibaraki-shi, Osaka, 567-8680 Japan, c/o: DEVELOPMENT SECTION 4, DVELOPMENT DEPT.2, DEVELOPMENT DIVISION, OPTICAL RELATED SECTOR of NITTO DENKO CORPORATION, declare and Say as follows:

1. I was graduated from of Physics Department with master degree, Kwansei Gakuin University in 1993.

2. Since 1993 to the present time, I have been employed by NITTO DENKO CORPORATION.

3. I am a manager of the DEVELOPMENT SECTION 4, Japan.

4. I am one of the inventors of the above-identified application and familiar with the subject matter thereof.

PAGE 3/7 * RCVD AT 3/19/2010 4:17:15 AM [Eastern Daylight Time] * SVR:RIGHTFAX/0 * DNIS:1 * CSID:81668380515 * DURATION (mm-ss):01-39

5. I have read the Official Action mailed and the references cited therein and are familiar with the subject matter thereof.

6. Contents of Experiments:

Experiments were conducted about New Example 1, which is involved in claim 1 of the invention, and New Example 2 (Comparative Example), which is not involved in claim 1 of the invention to show unexpected result of the invention.

Experiments were conducted as follows. It should be noted that "%" means "% by weight" in each Examples.

(Polarizer)

Polarizer used in sample 1 and 2 was the same described in the Example of the specification of the invention.

(Protective Film A)

Protective Film A used in sample 1 and 2 was the same described in the Example of the specification of the invention.

That is, the protective film A had an in-plane retardation Re of 1.1 nm and a thickness-direction retardation Rth of -2.8 nm.

(Protective Film B)

Protective Film B used in sample 1 and 2 was the same described in the Example of the specification of the invention.

That is, the protective film B had an in-plane retardation Re of 3 nm and a thickness-direction retardation Rth of -60 nm.

(Brightness Enhancement Film A)

DBEF (an anisotropic multilayered thin film) manufactured by 3M was used as same as the Example of the specification of the invention.

New Example 1

The protective film A was adhered to one side of the polarizer, and the protective film B was adhered to another side of the

PAGE 4/7 * RCVD AT 3/19/2010 4:17:15 AM [Eastern Daylight Time] * SVR:RIGHTFAX/0 * DNIS:1 * CSID:81668380515 * DURATION (mm-ss):01-39

polarizer, with a 5% aqueous solution of a mixture of 75 parts of polyvinyl alcohol (NH-18 manufactured by The Nippon Synthetic Chemical Industry Co., Ltd.) and 25 parts of glyoxal and then dried at 50° C for 5 minutes to obtain a polarizing plate. The brightness enhancement film A and the polarizing plate were adhered together with a transparent acrylic adhesive so that the protective film A side of the polarizing plate was faced to the brightness enhancement film A to obtain a high-brightness polarizing plate. When the high-brightness polarizing plate was prepared, adhering was performed such that the absorption axis of the polarizing plate was set perpendicular to the transmission axis of the brightness enhancement film A.

New Example 2 (Comparative Example)

A high-brightness polarizing plate was prepared using the process of Example 1 except that the protective film B side of the polarizing plate was faced to the brightness enhancement film A.

(Results)

The high-brightness polarizing plates obtained in New Examples 1 and 2 were evaluated as follows as same as the Example of the specification of the invention. The results are shown below Table 1.

(Determination of Change in Chromaticity)

The brightness enhancement film side of each high-brightness polarizing plate was adhered to a glass plate using a laminator. The laminate was placed on a backlight such that the brightness enhancement film side faced the backlight side. The backlight was a LCD backlight for use in ThinkPad A30 manufactured by IBM. Changes in chromaticity were determined in the normal direction (0°) of the front face of the high-brightness polarizing plate

PAGE 5/7 * RCVD AT 3/19/2010 4:17:15 AM [Eastern Daylight Time] * SVR:RIGHTFAX/0 * DNIS:1 * CSID:81668380515 * DURATION (mm-ss):01-39

and in an inclined direction (70°) with respect to the normal direction. Changes in chromaticity were measured using BM-7 manufactured by Topcon Corporation.

Table 1

	0°		70°		Amount of shift	
	X	Y	X	Y	ΔX	ΔY
New Example 1	0.3060	0.3033	0.3083	0.3003	-0.0023	+0.0030
New Example 2	0.3105	0.3099	0.3150	0.3060	-0.0045	+0.0039

The amount of shift was calculated from X-axis chromaticity values or Y-axis chromaticity values with respect to the front face (0°) and the inclined direction (70°). Their absolute values were used for evaluation.

Discussion:

As a result of comparing the amount of shift between New Example 1 and New Example 2, it is apparent that the amount of shift is significantly smaller in New Example 1 than that New Example 2, even though the same protective film A and B were used in the both side of the polarizing plate in New Examples 1 and 2.

This results shows that the high-brightness polarizing plate of the invention can reduce the visual amount of color shift when white viewing is displayed on a liquid crystal display or the like.

PAGE 6/7 * RCVD AT 3/19/2010 4:17:15 AM [Eastern Daylight Time] * SVR:RIGHTFAX/0 * DNIS:1 * CSID:81668380515 * DURATION (mm-ss):01-39

7. I declare further that all statements made herein of may own knowledge are true, and that all statements on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the above-identified application or any patent issuing thereon.

this day of , 2010 2 18

Tadayuki Kameyama

PAGE 7/7 * RCVD AT 3/19/2010 4:17:15 AM [Eastern Daylight Time] * SVR:RIGHTFAX/0 * DNIS:1 * CSID:81668380515 * DURATION (mm-ss):01-39